

PAT-NO: JP357008272A  
DOCUMENT-IDENTIFIER: JP 57008272 A  
TITLE: WATER INK COMPOSITION FOR BALL POINT PEN  
PUBN-DATE: January 16, 1982

INVENTOR-INFORMATION:

NAME  
KOSAKA, TETSUO

ASSIGNEE-INFORMATION:

NAME	COUNTRY
MITSUBISHI PENCIL CO LTD	N/A

APPL-NO: JP55083667  
APPL-DATE: June 20, 1980

INT-CL (IPC): C09D011/18

US-CL-CURRENT: 106/31.4

ABSTRACT:

PURPOSE: The titled composition with good transfer printing property to a paper surface and high writing performance smoothly supplied without slip on paper, which contains a humic acid, a nitrohumic acid or a mixture thereof.

CONSTITUTION: A humic acid (A) of MW  $10^{3} \sim 10^{6}$  having a representative molecular structure of formula II, and having an active group of formula I, a nitrohumic acid (B) of MW  $10^{2} \sim 10^{5}$  having an active group of formula III and a representative molecular structure of formula IV, or a mixture of components A and B, is incorporated in a water ink composition prepared by compounding an aqueous solvent primarily

consisting of  
water in which 5~20wt% water-soluble polyhydric alcohol is  
incorporated,  
with a water-soluble dye, an antiseptic and, if necessary, an anionic  
or  
nonionic surfactant, a water-soluble resin, etc.

COPYRIGHT: (C)1982,JPO&Japio